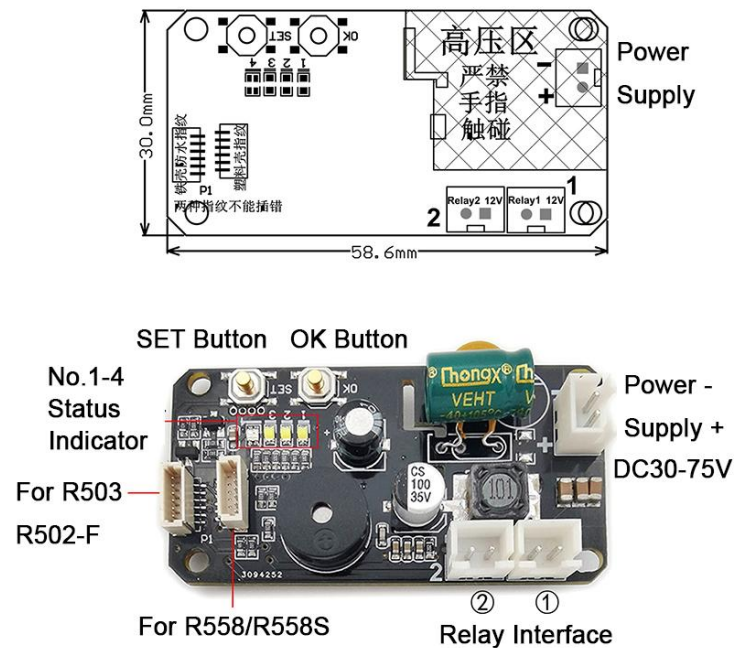# User manual for control board KS220-L

Technical parameter：

Power supply: DC 30-75V

Standby current: 3.5mA

Fingerprint capacity:

Admin Fingerprint:10 pieces

User Fingerprint: R503/R502-F:190 pieces   R558/R558S:110 pieces

Output: Relay

Relay Mode: Self-locking Mode, Ignition Mode, Jog Mode

Instructions for KS220-L control board：

(In factory working status,the No.1 relay in self-locking mode, the No.2 relay in ignition mode.)

1. **Register Administrator Fingerprint:** Short press the SET button,**the No.4 status indicator shows blue**, then press OK button to confirm, now the fingerprint module LED flash,put the same admin finger with multiple times in fingerprint collection area until hearing music means fingerprint register successful. Fingerprint can be registered continuously and it can register 10 pieces administrator fingerprint; if no need to adding fingerprint more, waiting a few seconds to exit. If the administrator is fully registered,it will be automatically exit the administrator registration state after hear "DiDiDi". It will start register user fingerprint if press SET button again. **Admin fingerprint don't have unlocking function, only used for register or delete fingerprint. Admin fingerprint shows purple ring LED, user fingerprint shows blue ring LED.**

2. **Register User Fingerprint:** Press the administrator fingerprint until **the module shows blue indicator light** and hear the music,means can add user fingerprint. Put the same

user finger with multiple times in fingerprint collection area until hearing music means fingerprint register successful.Fingerprint can be registered continuously when system in register state; if no need adding fingerprint more, waiting a few seconds.

3. **Delete User Fingerprint:** Press the administrator fingerprint until **the module shows red indicator light** and hear "DiDiDi" beep and music,means user fingerprints are deleted.

4. **Back to factory default:** Short press the SET button again and again,**until the NO.4 status indicator shows red**, then long press the OK Button until **the fingerprint module shows red indicator light flash fast and hear music** means initialization operation successful.

5. **How to Use Relay 1:** Short press registered user fingerprint. Fingerprint module shows green light.

6. **How to Use Relay 2:** Long press registered user fingerprint. Fingerprint module shows blue light.

7. **Relay Mode Setting:**

*Jog Mode: Short press the SET button again and again **until the NO.4 status indicator shows green**→Press OK Button→Press SET button to chose relay position→Press OK Button→Press SET button **until the NO.4 status indicator shows yellow**→Press OK Button→Press SET button again and again to adjust the relay time(each press is increase 0.5s)→Press OK button to confirm, finish setting.

*Self-locking Mode: Short press the SET button again and again **until the NO.4 status indicator shows green**→Press OK Button→Press SET button to chose relay position→Press OK Button→Press SET button **until the NO.4 status indicator shows cyan**→Press OK Button to confirm, finish setting.

*Ignition Mode: Short press the SET button again and again **until the NO.4 status indicator shows green**→Press OK Button→Press SET button to chose relay position→Press OK Button→Press SET button **until the NO.4 status indicator shows purple**→Press OK Button to confirm, finish setting. (Ignition mode is limited to No. 2 relay)

8. **Relay Mode Fast Setting:**

Short press the SET button again and again **until the NO.4 status indicator shows white**→Press OK Button→Press SET button to chose mode 1-4→Press OK Button to confirm.

*Mode 1: Relay 1-Self-locking, Relay 2-Ignition Mode(Default Factory Setting)

Mode 2: Relay 1-Self-locking, Relay 2-Jog Mode 0.5s

Mode 3: Relay 1-Self-locking, Relay 2-Self-locking

(When the two relays both in self-locking mode,long press any fingerprint can release two relays at the same time)

Mode 4: Relay 1-Jog Mode 0.5s, Relay 2-Jog Mode 0.5s

Note:

1.Any fingerprint can be used in the factory state, but the function will be invalid after the fingerprint is registered.

2.When the relay 1 and relay 2 work at the same time, fingerprint module shows cyan light.